COMMENTARY

Patient education for *H pylori*: who benefits?

Interventions, including patient counseling, only variably influence adherence and patient outcomes.[1] These intervention studies have included the management of hypertension, diabetes mellitus, and congestive heart failure. Perhaps the best association between intervention and outcome has been in the treatment of HIV-positive patients with antiretroviral agents—many interventions both increase adherence and reduce viral load.

Stevens and associates hypothesized that enhanced patient counseling would increase patient adherence, leading to greater *H pylori* eradication rates. However, no benefit was observed associated with "special" compared with "standard" counseling. In some respects, these results are not surprising for this specific disease. Previous studies have confirmed that patient nonadherence is the strongest predictor of failure of therapy with bismuth subsalicylate, metronidazole, and tetracycline for *H pylori*.[2] Although nonadherence was identified as the most important risk factor, only 60% adherence to the prescribed regimen was necessary to achieve a 96% eradication rate. In those patients taking less than 60% of their regimen, eradication was only 69%. Considering the similar rates of adherence between the two groups in the current study, it is unlikely that *H pylori* eradication would have differed between groups. It is also possible that inadvertent selection bias may have led to the recruitment of a highly motivated patient population, limiting any effect on adherence. The investigators evaluated the benefit of patient education in patients receiving four-drug treatment of *H pylori*. It is possible that a similar evaluation with other regimens would have resulted in different outcomes. It is also possible that the study clarifies that a more limited intervention (5-minute counseling) is equal to a more extensive intervention in these patients.

Lee and colleagues demonstrated that a pharmacist-run enhanced patient compliance program for *H pylori* increased the number of patients taking more than 90% of their medication.[3] Medication adverse effects and frequency of dosing were identified as key factors leading to nonadherence. However, *H pylori* eradication was not studied as an end point. Consequently, similar to the case with other diseases, linking patient education interventions with improved patient outcomes remains elusive.

Despite the difficulty of linking adherence with *H pylori* eradication, the American Society of Health-Systems Pharmacists recently published a position statement regarding the role of pharmacists in the identification and treatment of this disease.[4] Because of the complexities of the regimens and the potential for adverse effects and drug interactions, the organization advocated patient education as a mechanism for improving patient outcomes. However, as the current study suggests, enhanced patient education may not be necessary for all patient groups, particularly considering the need for only a 60% adherence rate for eradication of *H pylori*. It is possible that the identification of target groups at higher risk for nonadherence may be a preferable approach. Considering the substantial use of resources for these interventions, these efforts must be clearly linked with patient outcomes. Extensive patient education programs for the treatment of *H pylori* may not be warranted for all patients.

Authors: Katherine Yang is assistant clinical professor at the University of California, San Francisco (UCSF), School of Pharmacy and Pharmacist Specialist in Infectious Diseases at UCSF Medical Center. B Joseph Guglielmo is professor and vice chair at the UCSF School of Pharmacy and Pharmacist Specialist in Infectious Diseases at UCSF Medical Center.

References

1 Haynes RB, McKibbon KA, Kanani R. Systematic review of randomised trials of interventions to assist patients to follow prescriptions for medications. *Lancet* 1996;348:383-386 [erratum published in *Lancet* 1997;349:1180].
2 Graham DY, Lew GM, Malaty HM, et al. Factors influencing the eradication of *Helicobacter pylori* with triple therapy. *Gastroenterology* 1992;102:493-496.
3 Lee M, Kemp JA, Canning A, Egan C, Tataronis G, Farraye FA. A randomized controlled trial of an enhanced patient compliance program for *Helicobacter pylori* therapy. *Arch Intern Med* 1999;159:2312-2316.
4 ASHP therapeutic position statement on the identification and treatment of *Helicobacter pylori*-associated peptic ulcer disease in adults. Developed by the ASHP Commission on Therapeutics and approved by the ASHP Board of Directors on November 11, 2000. *Am J Health Syst Pharm* 2001;58:331-337.

Katherine Yang
B Joseph Guglielmo
Department of Clinical Pharmacy
School of Pharmacy
University of California, San Francisco
521 Parnassus Ave, Room C-152
San Francisco, CA 94143-0622

Correspondence to:
Dr Yang
kyy@itsa.ucsf.edu

Competing interests: None declared

West J Med 2002;176:97